UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,450	12/26/2000	Reinhard Buendgen	DE9-1999-0087	4189

877	7590	11/16/2005

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EXAMINER
ALI, SYED J

ART UNIT	PAPER NUMBER
2195	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 September 2005_.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9 and 11-16_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,2,6-9 and 11-16_ is/are rejected.

7)☒ Claim(s) _3-5_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)
                                                  Paper No(s)/Mail Date. _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   6)☐ Other: _____.
     Paper No(s)/Mail Date _____.

DETAILED ACTION

1.   This office action is in response to the amendment filed September 20, 2005. Claims 1-9

and 11-16 are presented for examination.

2.   The text of those sections of Title 35, U.S. code not included in this office action can be

found in a prior office action.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1-2, 6-9, 11, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated**

by Shaylor (USPN 6,760,907)

5.   As per claim 1, Shaylor teaches the invention as claimed, including a computer-

implemented method for running in parallel at least one parallel method called by a sequential

caller program (col. 5 lines 42-53), said computer-implemented method comprising:

        issuing a dedicated parallelization call to a parallel program manager comprising all

control information needed to allow for running said parallel method as a parallel program, said

control information comprising the name, serialized arguments, and parallelization parameters

for said parallel method as well as variables for receiving results (col. 5 line 54 - col. 6 line 22),

wherein programming of said parallel program manager and said parallel program are

independent of the programming of said sequential caller program in at least one of the following

aspects: programming language, compilation, linkage, and hardware platforms (col. 1 line 56 -

col. 2 line 17).

6.   As per claim 2, Shaylor teaches the invention as claimed, including the computer-

implemented method according to claim 1 further comprising:

serializing input arguments for a subprogram means (col. 6 lines 12-22); and

running said parallel method in parallel on one or more different machines yielding a

result (col. 2 lines 8-14);

returning said result to the caller program (col. 8 lines 37-45); and

deserializing the result (col. 8 lines 37-45).

7.   As per claim 6, Shaylor teaches the invention as claimed, including the computer-

implemented method according to claim 1 in which said dedicated parallelization call is done

more than once during the run of said caller program means (col. 2 lines 8-14; col. 8 lines 1-9).

8.   As per claim 7, Shaylor teaches the invention as claimed, including the computer-

implemented method according to claim 6 in which parallelization parameters are selectable for

each dedicated parallelization call (col. 5 line 54 - col. 6 line 22).

9.   As per claim 8, Shaylor teaches the invention as claimed, including the computer-
implemented method according to claim 2 further comprising the step of using a program library
which comprises program means for performing the steps of serializing input arguments, running
said parallel method in parallel, returning said result and deserializing the result (col. 5 line 42 -
col. 6 line 22).

10.   As per claim 9, Shaylor teaches the invention as claimed, including a distributed
computer system comprising at least two processing entities arranged for implementing the
computer-implemented method of claim 1 (col. 5 line 42 - col. 6 line 22).

11.   As per claim 11, Shaylor teaches the invention as claimed, including a computer program
product stored on a computer usable medium comprising a computer readable program for
causing a computer to perform the computer-implemented method of claim 1 (Fig. 1).

12.   As per claim 16, Shaylor teaches the invention as claimed, including a parallel program
managing tool stored on a computer readable medium comprising program means for returning
results from parallel executable subprogram means to a sequential caller program (col. 8 lines
37-45) wherein programming of said parallel executable subprogram means is independent of the
programming of said sequential caller program in at least one of the following aspects:
programming language, compilation, linkage, and hardware platforms (col. 1 line 56 - col. 2 line
17).

Claim Rejections - 35 USC § 103

13.   **Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bündgen in view of Goldberg et al. (USPN 6,571,232) (hereinafter Goldberg).**

14.   As per claim 12, Bündgen teaches the invention as claimed, including a program library stored on a computer readable medium comprising at least one of:

an implementation of an application interface for procedural parallel operating environment [POE] calls to a parallel program manager (§§ 2.2, 3; Fig. 2), wherein programming of said application interface is independent of the programming of said parallel program manager in at least one of the following aspects: programming language, compilation, linkage, and hardware platforms (§ 2.2).

15.   Goldberg teaches the invention as claimed, including template means for parallel subprogram means and script means for generating parallel subprograms (col. 6 lines 41-63).

16.   It would have been obvious to one of ordinary skill in the art to combine Bündgen and Goldberg since using a script to compile or translate programs into a form suitable for a particular element can be used to preprocess actions, thus speeding up considerably the time it takes to execute actions. Rather than waiting until the program is loaded onto a processing element and then translating the code, the preprocessor generates the appropriate type of code before sending the application out.

17.   As per claim 13, Bündgen teaches the invention as claimed, including the library according to claim 12 which provides prerequisites to generate user library functions that make parallelism transparent to a caller of said user library functions (§ 2.2).

18.   As per claim 14, Bündgen teaches the invention as claimed, including a user library generated by means of the library according to claim 12 (§ 2.2).

19.   As per claim 15, Bündgen teaches the invention as claimed, including the library according to claim 12 which said library is a dynamic link library (§ 2.2).

Response to Arguments

20.   **Applicant's arguments filed September 20, 2005 have been fully considered but they are not persuasive.**

21.   With respect to claim 12, Applicant argues that Bündgen fails to teach or suggest the programming of the application interface being independent of the programming of the parallel program manager in at least one of programming language, compilation, linkage, and hardware platforms.

22.   The application interface is understood as being the interface on which the parallel operating environment rests, which in turn calls a parallel program manager for executing the parallel program. The application interface in Bündgen is a threads system created at the user level, which is most often made up of kernel threads. The disclosed operating systems, Mach,

Solaris, OS/2, etc., are known to be implemented in programming languages other than C.

Rather, the C language is used for the execution context. Thus, the application interface and the

parallel program are independent in terms of at least the programming language.

23.   **Applicant's arguments with respect to claims 1-2, 6-9, 11, and 16 have been**
considered but are moot in view of the new grounds of rejection.

Allowable Subject Matter

24.   **Claims 3-5 are objected to as being dependent upon a rejected base claim, but would**
be allowable if rewritten in independent form including all of the limitations of the base
claim and any intervening claims.

25.   Claim 12, which incorporates features similar to those presented in claim 3, should be

amended to include the control information which has been added to claim 1 in the present

amendment.

Conclusion

26.   Applicant's amendment necessitated the new grounds of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Syed J. Ali whose telephone number is (571) 272-3769. The

examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai T. An can be reached on (571) 272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Syed Ali
November 10, 2005

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SUPERVISORY PATENT EXAMINER
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